CLAIMS

What is claimed is:

1) A method for extending the effective period during which tissue treated with a clostridial toxin is paralyzed comprising: contacting said tissue with a composition comprising an agent able to prevent the neuroregenerative activity of a polypeptide selected from the group consisting of: IGF I, IGF II, cilary neurotrophic factor, NT-3, NT-4, brain-derived neurotrophic factor, leukemia inhibitory factor, tenascin-C, ninjurin, neural cell adhesion molecule, and neural agrin.

2) The method of claim 1 wherein said contacting step occurs at the same time as said tissue is treated with said clostridial toxin.

3) The method of claim 1 wherein said contacting step occurs prior to treatment of said tissue with said clostridial toxin.

4) The method of claim 1 wherein said clostridial toxin comprises BoNT.

5) The method of claim 1 wherein said clostridial comprises BoNT/A.

6) The method of claim 1 wherein said agent is selected from the group consisting of:
a) an antibody able to selectively bind said polypeptide,

b) a competitive inhibitor of said polypeptide,

c) a compound able to selectively prevent the expression of a gene encoding said polypeptide,

d) a binding protein other than an antibody, and

e) a ribozyme,

f) a nucleic acid encoding an inactive growth factor receptor able to bind said growth factor.

7) The method of claim 6 wherein said agent is an antibody able to selectively bind said polypeptide.

8) The method of claim 6 wherein said agent is a competitive inhibitor of said polypeptide.

9) The method of claim 6 wherein said agent is a compound able to prevent the expression of a gene encoding said polypeptide.

10) The method of claim 6 wherein said agent is a binding protein other than an antibody.

11) The method of claim 9 wherein said polypeptide is selected from the group consisting of IGF I and IGF II, and said binding protein is selected from the group consisting of IGF-BP4 and IGF-BP5.

12) A method for stimulating the outgrowth of neural sprouts from damaged neural tissue comprising: contacting said tissue with a composition comprising a polypeptide which comprises a neurotropically active domain derived from an agent selected from the group consisting of IGF I,

IGF II, cilary neurotrophic factor, NT-3, NT-4, brain-derived neurotrophic factor, leukemia inhibitory factor, tenascin-C, ninjurin, neural cell adhesion molecule, and neural agrin.

13) The method of claim 11 wherein said agent comprises IGF I .

14) The method of claim 11 wherein said agent comprises IGF II.

15) The method of claim 11 wherein said agent comprises NT-3.

16) The method of claim 11 wherein said agent comprises ciliary neurotrophic factor.

17) The method of claim 11 wherein said agent comprises NT-3.

18) The method of claim 11 wherein said agent comprises NT-4.

19) The method of claim 11 wherein said agent comprises brain-derived neurotrophic factor.

20) The method of claim 11 wherein said agent comprises leukemia inhibitory factor.

21) The method of claim 11 wherein said agent comprises tenascin-C.

22) The method of claim 11 wherein said agent comprises ninjurin.

23) The method of claim 11 wherein said agent comprises neural-cell adhesion molecule.

24) The method of claim 11 wherein said agent comprises neural agrin.